THAT WHICH IS CLAIMED IS:

1. A compound represented by the formula:

$$CH_2=CZ\text{-}CO_2\text{-}POLY\text{-}W\text{-}POLY'\text{-}Q$$

where

Z represents H or alkyl;

POLY and POLY' are poly(alkylene oxide) groups that can be the same or different and are represented by the formula $-(CH_2CHRO)_n\text{-}CH_2CHR-$ in which R is H or alkyl, and n ranges from about 10 to about 4000;

Q represents a functional group; and

W represents a hydrolytically unstable linkage selected from

$-O(CH_2)_m\text{-}CO_2R_1\text{-}CO_2-$, and

$-O\text{-}(CH_2)_m\text{-}CO_2-$

where m ranges from 1 to 10, and R_1 is $-CH_2-$, $-CH_2CH_2-$ or $-CH(CH_3)CH_2-$.

2. The compound of Claim 1, wherein Q is selected from the group consisting of aldehydes, carboxylic acids, active esters, active carbonates, sulfonate esters, amines, hydrazides, orthopyridyl disulfides, and thiols.

3. A compound represented by the formula:

$$CH_2=CZ\text{-}CO_2\text{-}POLY\text{-}W\text{-}POLY'\text{-}Q$$

where

Z represents H or alkyl;

POLY and POLY' are poly(ethylene glycol) groups represented by the formula $-(CH_2CH_2O)_n\text{-}CH_2CH_2O-$ in which n ranges from about 10 to about 4000;

Q represents a functional group; and

W represents a hydrolytically unstable linkage selected from

$-O(CH_2)_m\text{-}CO_2R_1\text{-}CO_2-$, and

$-O\text{-}(CH_2)_m\text{-}CO_2-$

where m ranges from 1 to 10, and R_1 is $-CH_2-$, $-CH_2CH_2-$ or $-CH(CH_3)CH_2-$.

4. The compound of Claim 3, wherein Q is selected from the group consisting of aldehydes, carboxylic acids, active esters, active carbonates, sulfonate esters, amines, hydrazides, orthopyridyl disulfides, and thiols.